

FILE NAME: Packings and Gaskets (PAG)

DATE: 1975

DOC#: PAG058

DOCUMENT DESCRIPTION: Dept of Navy - Unpublished Report of Inspection

104.2

00251/12-12-75 / B107 Gasket stamping

CODE 300 7-1
4 Shop 56

DEPARTMENT OF THE NAVY
NAVAL REGIONAL MEDICAL CENTER
BREMERTON, WASHINGTON 98316

NRMC BREM 430/LRL:cp
6260/56
DEC 12 1975

From: Commanding Officer, Naval Regional Medical Center, Bremerton, WA 98316
To: Commander, Puget Sound Naval Shipyard, Bremerton, WA
(Superintendent Pipefitter)

Subj: Airborne asbestos levels during gasket manufacture

Ref: (a) Memo from Code 385 PSNS to Code 430 NRMC BREM, of 5 Sep 1975
(b) NAVSHIPYDPUGET INST 6260.11, Part B, Chapter 1

1. Reference (a) requested air sampling to determine the airborne asbestos levels during asbestos gasket manufacture in Shop 56, Building 107.
2. Air samples were collected on 16 November during machine stamping and on 2 December during hand stamping of 1/16 inch Garlock gasket material. The air concentrations were 5 and 3 asbestos fibers (5 micron and longer) per cubic centimeter of air during machine and hand stamping respectively. The allowable 8 hour exposure limit is currently 5 fibers/cc and will be lowered to 2 fibers/cc on 1 July 1976 (reference (b)).
3. It is recommended action be taken to reduce the airborne asbestos levels. The preferred means is by substitution of non-asbestos material. In the interim, gasket makers must be considered as asbestos workers. Medical examination and process controls must be in accordance with reference (b). These requirements also apply to personnel using asbestos in manufacturing pipe hangers.

Roger R. Beckett
ROGER R. BECKETT
By direction

PLAINTIFF'S
EXHIBIT

101

4-9-07

COLLECTION AND COUNTING AIRBORNE ASBESTOS FIBERS
PHASE CONTRAST MICROSCOPY METHOD

DATA SHEET AIRBORNE ASBESTOS FIBER CONCENTRATION

4.7 fibers/cc

DATE: 11-16-75 SAMPLE #: 191

SAMPLE LOCATION: GASKET SECTION - Shop 56

AIR SAMPLER FLOW RATE (liters/min): 1 Lpm

TIME ON: 1343 OFF: 1400 NET TIME: 17 (minutes)

TOTAL AIR VOLUME: 17 (liters)

BLANK COUNT AVERAGE: < 1 fibers/filter

AVERAGE COUNT: .47 Fibers/Field

COMMENTS: stamping (punch)

COLLECTED BY: J. M. LeBaton

COUNTED BY: J. M. LeBaton

TYPE of GASKET MATERIAL:
Garlock

PROTECTIVE EQUIP. USED:
none

0	1	0	1	1
	1	0	0	0
	0	1	0	0
	0	0	0	1
5	0	1	0	1
	1	1	1	0
	1	2	0	0
	1	1	1	1
	0	0	0	0
10	2	1	0	0
	0	0	0	2
	0	0	0	0
	0	0	0	0
	0	0	0	0
15	0	0	1	0
	0	1	0	0
	0	1	1	0
	1	2	1	0
	0	2	0	0
20	2	1	1	1
	2	1	0	0
	1	0	0	0
	0	0	0	0
	0	0	1	1
25	0	1	2	0
	13	16	10	8

CALCULATIONS:

AIRBORNE ASBESTOS CONCENTRATION =

$\frac{\text{Average Fiber Count} \times (\text{Filter Area})}{\text{Filter Area} \times (\text{Sample Volume}) \times (1000)}$

$$\frac{.47 (855)}{.0050 \times (17) \times 1000} = 4.7 / \text{cc}$$

COLLECTION AND COUNTING AIRBORNE ASBESTOS FIBERS
PHASE CONTRAST MICROSCOPY METHOD

DATA SHEET AIRBORNE ASBESTOS FIBER CONCENTRATION

3 fibers/cc

DATE: 12-2-75 SAMPLE ID: 209 188

SAMPLE LOCATION: Insulator Section Shop 56

AIR SAMPLER FLOW RATE (liters/min): 1.8 lpm

TIME ON: 1401 OFF: 1416 NET TIME: 15 (minutes)

TOTAL AIR VOLUME: 27 (liters)

BLANK COUNT AVERAGE: < 1 fiber/filter

Foreman Hamslaw

AVERAGE COUNT: .48 fibers/field

COMMENTS: 1/16" thick 5 ft strip
HMP-46C
SYM 2150
P001 7935

COLLECTED BY: J. H. Hester COUNTED BY: J. H. Hester

0	1	1	0	0
	1	0	0	0
	0	0	0	0
	1	1	0	1
5	0	4	0	2
	0	1	0	0
	0	0	0	0
	1	1	1	1
	0	1	0	1
10	0	0	0	2
	1	1	0	0
	0	0	0	0
	0	0	0	0
	1	0	1	0
15	0	0	0	1
	1	0	0	0
	0	3	0	0
	0	0	3	1
	0	0	0	0
20	2	2	0	1
	0	0	0	0
	1	0	0	0
	0	0	1	0
	0	1	2	2
25	1	0	1	0

CALCULATIONS: 11 16 9 12

AIRBORNE ASBESTOS CONCENTRATION

Average Fiber Count (Filter Area)
Field Area (Sample Volume) (1000)

48 fibers/100 fields
48 fibers/field

.48 (855)
(0.0054)(27)/1000
= 3 fibers/cc